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# SUNDERLAND

# PORT SANITARY AUTHORITY.

1933

# Annual Report

OF THE

# Medical Officer of Health.

# PORT OF SUNDERLAND.

# 1933.

# ANNUAL REPORT

PRESENTED TO THE

# Port Sanitary Authority

BY

**A. STUART HEBBLETHWAITE,**

**M.C., M.B., CH.B., D.P.H.,**

**Medical Officer of Health for the Port and Borough of Sunderland.**

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# Sunderland Port Sanitary Authority.

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A. Stuart Hebblethwaite, M.C., M.B., CH.B., D.P.H.

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Eustace Thorp, O.B.E., M.B., B.CH., D.P.H.

PORT SANITARY INSPECTOR:

E. Cooper, Cert. R.S.I.

ASSISTANT INSPECTOR:

C. Pickering, Cert. R.S.I.

OFFICIAL RAT CATCHERS:

B. M. Bell.
G. J. Popjoy.

Meetings:—Monthly, on the Thursday in the second week preceding that in which the Council meets, at 7 p.m.

Offices of Medical Officer of Health and Port Sanitary Inspector. } Athenæum Buildings, 27, Fawcett Street

Office Telephone No.: Sunderland 56206.

SUNDERLAND

# Port Sanitary Authority.

# Annual Report

OF THE

## Medical Officer of Health

FOR THE

YEAR ENDING DECEMBER 31st, 1933.

TO THE MAYOR, ALDERMEN AND COUNCILLORS OF THE COUNTY BOROUGH OF SUNDERLAND ACTING AS THE PORT SANITARY AUTHORITY OF THE PORT OF SUNDERLAND.

MR. MAYOR, ALDERMAN MRS. BELL AND GENTLEMEN,

I hereby submit my Report of work performed in the Port during the year ended 31st December, 1933, which includes:—

1. The prevention of the importation of Infectious Disease.
2. The prevention of the importation of Rat Plague.
3. The carrying out of the terms of the International Sanitary Convention, 1926, particularly in regard to the granting of Deratisation and Deratisation Exemption Certificates.
4. The supervision of the Hygiene of Crew and Passenger accommodation in ships.
5. The inspection of Imported Food.
6. Various other duties such as Smoke Abatement and the supervision of the general sanitary condition of the Port Sanitary District.

The volume of trade of the Port during the past year has been somewhat less than that of 1932, due to the decreased export of coal and coke. Imports show increases over 1932 in the following commodities:—Timber, pit props, iron ore, grain, esparto grass, wood pulp and petroleum.

During the year 5 cases of infectious disease, viz., Malaria 2, Tuberculosis, Chickenpox, and Typhoid were found to exist on vessels entering the Port. No case of infectious disease spread from the Port to the Borough.

The Port Sanitary Regulations, 1933, came into operation on the 1st of May and should prove an effective check on the importation of infectious diseases; these are being carried out smoothly and efficiently without friction or delay and with the close co-operation of Customs Officers, Pilots, Dock and Harbour Masters and Shipping Agents. Details of the working of the regulations are set out in pages 11-15.

Work under Articles 19-21 (Deratisation of Ships) has resulted in 141 Certificates for "Deratisation" or Deratisation "Exemption" being issued, compared with 178 certificates issued last year.

The work of the Port Sanitary Inspectors has been maintained at a very high standard of efficiency.

I wish to record my thanks for the valuable assistance given by H.M. Collector of Customs and his staff, also the Officials of the River Wear Commissioners, Pilots and Shipping Agents who have so willingly co-operated with the Port Sanitary Authority.

A. STUART HEBBLETHWAITE,
Port Medical Officer of Health.

Health Office,
Athenæum Buildings,
27, Fawcett Street,
Sunderland,
March, 1934.

## TABLE A.

### 1. Amount of Shipping entering the Port Sanitary District during the Year 1933.

| | Number of Arrivals. | Tonnage. | Number Inspected | | Number Reported to be Defect've | Number of Vessels on which defects were remedied | Number of Vessels reported as having, or having had, during the voyage infectious disease on Board. |
|---|---|---|---|---|---|---|---|
| | | | By the Medical Officer of Health. | By the Port Sanitary Inspector | | | |
| 1933. | | | | | | | |
| Foreign— | | | | | | | |
| Steamers..... | 596 | 670,410 | 6 | 586 | 43 | 41 | 7 |
| *Motor ........ | 10 | 17,973 | 2 | 10 | 4 | 4 | ... |
| Sailing ...... | ... | ... | ... | ... | ... | ... | ... |
| Fishing ...... | ... | ... | ... | ... | ... | ... | ... |
| Total Foreign .... | 606 | 688,383 | 8 | 596 | 47 | 45 | 7 |
| Coastwise— | | | | | | | |
| Steamers...... | 1798 | 1,192,206 | ... | 1502 | 70 | 69 | 2 |
| *Motor ......... | 96 | 62,226 | 2 | 69 | 2 | 2 | ... |
| Sailing ...... | 25 | 8,175 | ... | ... | ... | ... | ... |
| Fishing ...... | 558 | 19,530 | ... | 7 | ... | ... | ... |
| Total Coastwise ... | 2477 | 1,282,137 | 2 | 1578 | 72 | 71 | 2 |
| Total Foreign and Coastwise | 3083 | 1,970,520 | 10 | 2174 | 119 | 116 | 9 |

*Includes mechanically propelled vessels other than steamers.

The following figures show the number of vessels of each nationality inspected:—

| | |
|---|---|
| Belgian | 4 |
| Cyprus | 1 |
| Danish | 42 |
| Danzig | 1 |
| Dutch | 19 |
| Esthonian | 14 |
| Finnish | 34 |
| French | 27 |
| German | 46 |
| Greek | 13 |
| Italian | 18 |
| Jugo Slav | 7 |
| Latvian | 15 |
| Norwegian | 90 |
| Panamaian | 1 |
| Polish | 4 |
| Russian | 4 |
| Spanish | 22 |
| Swedish | 103 |
| British | 1,709 |
| Total | 2,174 |

## II. CHARACTER OF TRADE OF PORT.

### Passenger Traffic during 1933.

The Port of Sunderland is not an accredited Aliens Port, therefore no passenger traffic exists.

**The Principal Trade of the Port for 1933 was:—**

## IMPORTS.

| | | |
|---|---|---|
| Timber | 19,804 | loads. |
| Pit Props | 84,573 | ,, |
| Iron and Steel | 79 | tons. |
| Iron Ore | 9,627 | ,, |
| Grain | 64,977 | qrs. |
| Esparto Grass | 20,259 | tons. |
| Wood Pulp | 9,413 | ,, |
| Petroleum in bulk | 79,373 | ,, |
| Cement | 17,102 | ,, |
| Sundries | 41,447 | ,, |

## EXPORTS.

| | | |
|---|---|---|
| Coal and Coke | 4,075,549 | tons. |
| Pitch | 10,864 | ,, |
| Cressote Oil | 3,335 | ,, |
| Binder Twine | 2,000 | ,, |
| Bottles and Glass | 338 | ,, |
| Iron and Steel | 1,783 | ,, |
| Machinery | 1,432 | ,, |
| Petroleum | 14,041 | ,, |
| Paper | 1,608 | ,, |
| Pit Props | 6,287 | ,, |

Timber and pit props are imported from U.S.A., Norway, Sweden, and Baltic ports. Iron and steel from Tyne, Tees, Germany, Holland and Belgium. Iron ore from Spanish and North African ports. Chalk, loam, cement, etc., from London and Belgian ports. Grain from the United States, Canadian, Australian, Baltic and Argentine ports. Esparto grass from North African ports. Wood pulp from Sweden, Norway and Finland. Petroleum from the United States, Mexico, Russia, Persia, London, Hull, and Grangemouth. Cork from Portugal, also a regular weekly general cargo service from Rotterdam, London, Hamburg and Antwerp.

Coal and coke are exported to Norway, Sweden, Denmark, Baltic ports, France, Holland, Belgium, Spain, Italy, Germany, Greece, Portugal, North African ports and River Plate, also to London, Channel ports and the ports on the East Coast of Scotland.

During the year 1933 the total number of vessels cleared from the Port was 2,544, a decrease of 46 on that of the preceding year. Those engaged in the coasting trade numbered 1,771 and in the European trade 660, while 113 were trading beyond Europe. The register tonnage of the vessels amounted to 2,008,991 register tons, compared with 2,173,017 tons in 1932.

The particulars of these ships, as regards tonnage, are seen in the following table, which also gives a comparison with the preceding four years:—

| Tonnage. | 1929 | 1930 | 1931 | 1932 | 1933 |
|---|---|---|---|---|---|
| Under 150 tons... | 396 | 379 | 363 | 270 | 287 |
| 150— 250 „ ... | 267 | 219 | 216 | 235 | 182 |
| 250— 350 „ ... | 289 | 310 | 337 | 289 | 298 |
| 350— 500 „ ... | 389 | 362 | 439 | 331 | 338 |
| 500— 750 „ ... | 454 | 350 | 382 | 358 | 419 |
| 750—1000 „ ... | 455 | 451 | 382 | 333 | 326 |
| 1000 and upwards | 971 | 914 | 847 | 774 | 694 |
| Totals ......... | 3221 | 2985 | 2966 | 2590 | 2544 |

The above table shows, in comparison with 1932, an increase of 17 vessels under 150 tons; a decrease of 53 vessels 150-250; an increase of 9 vessels 250-350; an increase of 7 vessels 350-500; an increase of 61 vessels 500-750; a decrease of 7 vessels 750-1,000, and a decrease of 80 vessels of 1,000 tons and upwards.

Taken from the River Wear Commissioners' "Return of the Trade of the Port of Sunderland for the year ending 31st December, 1933," by the courtesy of Mr. Humble, Clerk to the Commission.

# INSPECTOR'S MONTHLY REPORTS.

| Date of Report. 1933. | Description of Ships. *1 Steam | Description of Ships. 2 Sailing | Nationality. 3 British | Nationality. 4 Foreign | Trade engaged in. 5 Coast | Trade engaged in. 6 Foreign | 7 Total Ships examined. | Sanitary Condition. 8 Good. | Sanitary Condition. 9 Bad. | Written Notices. 10 Served. | 11 Verbal Notices | 12 Total Verbal and Written Notices. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| January 26th ...... | 121 | ... | 93 | 28 | 65 | 56 | 121 | 112 | 9 | 0 | 9 | 9 |
| February 23th...... | 156 | ... | 128 | 28 | 104 | 52 | 156 | 150 | 6 | 0 | 6 | 6 |
| March 30th ...... | 210 | ... | 171 | 39 | 136 | 74 | 210 | 204 | 6 | 0 | 6 | 6 |
| April 27th ......... | 159 | ... | 128 | 31 | 101 | 58 | 159 | 155 | 4 | 0 | 4 | 4 |
| June 1st ............ | 202 | ... | 154 | 48 | 110 | 92 | 202 | 187 | 15 | 0 | 15 | 15 |
| June 29tn ......... | 147 | ... | 120 | 27 | 87 | 60 | 147 | 140 | 7 | 0 | 7 | 7 |
| July 27th............ | 176 | ... | 132 | 44 | 102 | 74 | 176 | 165 | 11 | 0 | 11 | 11 |
| August 31st......... | 196 | ... | 148 | 48 | 107 | 89 | 196 | 182 | 14 | 0 | 14 | 14 |
| September 28th ... | 170 | ... | 136 | 34 | 104 | 66 | 170 | 157 | 13 | 0 | 13 | 13 |
| October 26th ...... | 170 | ... | 130 | 40 | 98 | 72 | 170 | 161 | 9 | 0 | 9 | 9 |
| November 30th ... | 212 | ... | 169 | 43 | 131 | 81 | 212 | 202 | 10 | 1 | 9 | 10 |
| December 31st ... | 255 | ... | 200 | 55 | 162 | 93 | 255 | 240 | 15 | 0 | 15 | 15 |
| Totals in 1933... | 2174 | ... | 1709 | 465 | 1307 | 867 | 2174 | 2055 | 119 | 1 | 118 | 119 |
| Totals in 1932... | 2281 | ... | 1791 | 495 | 1274 | 1012 | 2286 | 2145 | 141 | 0 | 141 | 141 |

* Including Motor Vessels.

## III. SOURCE OF WATER SUPPLY.

The water for the Port and shipping is supplied by the Sunderland and South Shields Water Company. Vessels lying at the quays and wharves are supplied direct from the hydrants, those vessels which are moored at buoys in the river and docks are supplied from the water boats, which are 3 in number. These have been regularly inspected and found to be kept in a cleanly condition. Two of the above-mentioned water boats serving the Docks are built of wood and carry the water in specially constructed wooden tanks so arranged as to leave a space varying from 6 to 10 inches between the shell of the vessel and the tank, thus preventing contamination by bilge water or from other sources. The remaining boat, which serves the river area, is of a modern type, constructed of steel, and carries the water on the skin (i.e., the hull being the tank). This method of carrying water is more open to risk of contamination from outside sources than in the case of the wooden vessels, as should any damage be done to the shell plating, the water in the boat would be contaminated by river water and sewage; this would be especially dangerous in the case of leaky rivets, contamination from which would probably take some time to discover.

The rubber boots worn by the men whilst cleansing the interior of the boats have served a useful purpose in preventing unnecessary contamination of the water.

On referring to the table on Page 11 it will be observed that in 1932, out of 20 samples, 13 were reported as Class 1. Whereas in 1933, out of 12 samples taken, 6 were reported as Class 1.

During the past year 12 samples from the water boats were submitted to the Municipal Basteriologist; the results of the examinations are summarised in the following table:—

**1933.**

| Source. | Number of Samples. | Class 1. | Class 2. | Class 3. | Class 4. |
|---|---|---|---|---|---|
| Water Boats | 12 | 6 | 5 | 1 | ... |
| Hydrants | ... | ... | ... | ... | ... |
| | 12 | 6 | 5 | 1 | ... |

### 1932.

| Source. | Number of Samples. | Class 1. | Class 2. | Class 3. | Class 4. |
|---|---|---|---|---|---|
| Water Boats | 19 | 12 | 7 | ... | ... |
| Hydrants | 1 | 1 | ... | ... | ... |
| | 20 | 13 | 7 | ... | ... |

CLASS 1.—A water containing no B. Coli in 100 cc. of water.SATISFACTORY.
CLASS 2.—B. Coli test positive in 100 cc. negative in 10 cc....DOUBTFUL.
CLASS 3.—B. Coli test positive in 10 cc. negative in 1 cc UNSATISFACTORY.
CLASS 4.—B. Coli test positive in 1 cc. or less ............................ BAD.

## IV. PORT SANITARY REGULATIONS, 1933.

### 1. Arrangements for dealing with Declarations of Health.

Before pratique is granted, the Master of a foreign going vessel arriving from a foreign port must ascertain the state of health of all persons on board and complete a signed " Declaration of Health " in the prescribed form. When completed the Declaration is handed to the Customs Officer or Officer of the Port Sanitary Authority, whoever is the first to board the ship. Officers of the Port Sanitary Authority when boarding vessels from foreign before the Customs, give an " All Clear " Certificate which is delivered to the Customs Officer who subsequently boards the vessel.

Arrangements have been made whereby signed Declarations of Health, which have been tendered to Customs Officers, are collected each morning from the Waterguard Officers by Port Sanitary Inspectors who check them when visiting the respective ships. Declaration of Health forms are issued to Master by Customs and Sanitary Officers, also at the Custom House when outward bound vessels are clearing for foreign.

The number of Declarations of Health rendered to the Port Sanitary Authority during the period 1st May to 31st December, 1933, is 227, none of which reported infectious disease on arrival. Very little difficulty has been experienced in obtaining correctly filled in Declarations.

### 2. Boarding of Vessels on Arrival.

All vessels reporting sickness on board are boarded on arrival by the Medical Officer of Health and Sanitary Inspector. Other vessels are boarded on arrival or as soon as practicable at their place of mooring, loading or discharge, by the Sanitary Inspectors.

### 3. Notification to the Authority of Inward Vessels requiring special attention (wireless messages, land signal stations, information from pilots, customs officers, etc.).

Application was made to the Minister of Health under the provisions of Article 6 of the Regulations to apply this section to the district of this Authority, but the Ministry have deferred this until the practical working of the machinery contemplated by this Article has been examined in a small number of the larger ports. Arrangements are made for notification of the Port Sanitary Authority by the Customs or Pilots of vessels requiring special attention on arrival in port. Shipping Agents also notify when they have received messages, whether by radio or telegram, of sickness on board an expected arrival.

### 4. Mooring stations designated under Article 10: (a) within the docks, (b) outside the docks.

In every district one or more mooring stations within the docks shall be established by the Sanitary Authority, with the concurrence of the Customs Officer and the Harbour Master, in such a situation as to enable a ship to be moored without coming into contact with other ships or with the shore.

The mooring stations established by this Authority, with the concurrence of the Collector of Customs and the Dock and Harbour Master, are: (a) for dock-bound vessels, the South tier buoys, East side, South Dock; (b) for river-bound vessels, the low tier buoys in the river.

### 5. Particulars of any standing exemptions from the provisions of Article 14.

Where a ship (whether a foreign going ship or not) arrives in a district from a foreign port and it appears to the Customs Officer, from answers to questions in a Declaration of Health or form, answers to enquiries made by him, or otherwise—

(a) that during the voyage (or where the voyage has lasted more than six weeks, during the last six weeks) there has been on the ship a death from illness suspected to of an infectious nature or a case of such illness; or

(b) that the ship has called at a port or seaboard included in the list referred to in Article 11; or

(c) that during the voyage (or, where the voyage has lasted more than six weeks, during the last six weeks) plague has occurred or been suspected amongst rats or mice on the ship, or sickness or death not attributable to poison or other measures for destruction has occurred amongst the rats or mice on the ship;

he shall direct that the ship shall be taken to and detained at a mooring station unless the medical officer or other officer of the sanitary authority otherwise allows.

Arrangements have been made with the Collector of Customs for standing exemption from detention, under Article 14, in the following instances, viz.:—

(a) Vessels arriving with minor infectious disease.

(b) Vessels arriving from infected ports with clean Declaration of Health.

(c) Vessels from infected ports with minor infectious disease on board.

Vessels under the above-mentioned headings are allowed to proceed to their normal place of mooring, loading or discharge under a modified form of pratique, the Medical Officer of Health notified of their arrival, and Article 16 put into operation.

### 6. Experience of working Article 16.

Where a ship arrives in a district from a foreign port, no person other than a pilot, a csutoms officer, an immigration officer or a person acting in the execution of the regulations shall, without the permission of the medical officer or other authorised officer of the sanitary authority, board or leave the ship until it is free from control under these regulations, and the master shall take all steps necessary to secure compliance with this provision.

Some little difficulty was experienced at first in applying the provisions of Article 16, especially that portion of the Article relating to unauthorised persons boarding vessels before the arrival of customs officers and officers of the Port Sanitary Authority. This was eventually remedied by verbal warnings to offenders and the notification of offences to pilots and customs officers.

**7. What, if any, arrangements have been made for:—**

(a) Premises and waiting-rooms for medical examination.

No provision has been made for this but the Port Sanitary Offices have ample accommodation and could be utilised for this purpose.

(b) Cleansing and disinfection of ships, persons and clothing and other articles.

Disinfection of ships for the purpose of preventing the spread of infectious disease is carried out by the inspectorial staff. Persons, bedding, clothing and other articles are removed to the Borough infectious diseases hospital for cleansing and disinfection, where ample facilities exist.

(c) Premises for temporary accommodation of persons for whom such accommodation is required for the purpose of the Regulations.

Temporary accommodation of persons under the above-named heading is available at the Borough infectious diseases hospital.

(d) Hospital accommodation available for Plague, Cholera, Yellow Fever, Smallpox and other infectious diseases.

The accommodation available for Plague, Cholera, Yellow Fever and other infectious diseases, with the exception of Smallpox, is at the Borough infectious diseases hospital. Cases of Smallpox are removed to the Sunderland and South Shields Joint Smallpox Hospital at Whiteleas.

(e) Ambulance Transport.

Motor ambulances are available at any time during day or night for the purpose of removing infectious cases to hospital.

(f) Supervision of Contacts.

Contacts are medically examined and kept under observation on board and if allowed to leave the vessel are supplied with prepaid, reply post-cards (P.S.3) for the purpose of notifying any change of address within 14 days of disembarkation. The names and destinations given by persons allowed to leave under Article 16 are forwarded to the Medical Officer of Health of such districts.

### 8-9. Arrangements for the bacteriological or pathological examinations of rats for plague or for other bacteriological or pathological examinations.

This examination is carried out by the Pathologist and Bacteriologist to the Corporation.

### 10. Arrangements for the diagnosis and treatment of venereal disease among sailors under international arrangements.

The Corporation Clinic for the diagnosis and treatment of venereal disease for the ports of Sunderland and Seaham Harbour is at the Royal Infirmary, Sunderland. Enquiries are made as to the existence of venereal disease on vessels, the facilities for treatment are pointed out and printed cards, conveying information on the dangers of venereal diseases, together with the times of clinics, are distributed freely among seamen. Posters and handbills are also posted at suitable positions in the Port area.

### 11. Arrangements for the interment of dead.

Dead bodies brought into the Port by ship are examined on board by the Medical Officer of Health and then ordered to be removed to the nearest mortuary to await the necessary inquest. If cause of death is of a non-infectious nature the onus of arranging for interment is upon the Master of Agent.

Should the cause of death be from an infectious disease the arrangement for interment is carried out under the supervision of the Port Sanitary Authority.

**12. Other matters, if any, requiring or receiving attention.**
None.

## TABLE C.

### Cases of Infectious Sickness landed from Vessels.

| DISEASE. | No. of Vessels during 1933. | | No. of Vessels concerned. | Average for past 5 years. |
|---|---|---|---|---|
| | Passengers | Crew. | | |
| Chicken Pox....... | ... | 1 | 1 | ·2 |
| Continued Fever.. | ... | ... | ... | ... |
| Diphtheria.......... | ... | ... | ... | ... |
| Dysentery........... | ... | ... | ... | ... |
| Erysipelas........... | ... | ... | ... | ·2 |
| Malaria............... | ... | 2 | 2 | ·8 |
| Measles............... | ... | ... | ... | ·4 |
| Pneumonia.......... | ... | ... | ... | ·4 |
| Relapsing Fever... | ... | ... | .. | ... |
| Scarlet Fever....... | ... | ... | ... | ·4 |
| Smallpox............. | ... | ... | ... | ·4 |
| Tuberculosis........ | ... | 1 | 1 | 1·0 |
| Typhoid Fever..... | ... | 1 | 1 | ·2 |
| Typhus Fever...... | ... | ... | ... | ... |
| TOTAL...... | ... | 5 | 5 | 4·0 |

### MALARIA.

"ESSEX JUDGE" S.S., from West African ports via Rotterdam.

Arrived 5th November, 1932, having had 24 cases of Malaria during the voyage, including one death, all of which were disposed of prior to arrival at this Port. The vessel proceeded to lay up for an indefinite period in charge of the Master, who had been one of the sufferers during the voyage. The Master developed another attack of Malaria on the 4th February, 1933, and was removed to the Royal Infirmary for treatment.

" NORDEFLINGE " S.S., from Ceuta, Huelva and Ghent.

Arrived 31st August, when the Master reported himself as suffering from Malaria of long standing and that he was leaving the vessel and proceeding to his home for treatment.

## TUBERCULOSIS.

" CURONIA " S.S., from Riga and Kasko.

Arrived p.m. tide 11th July, when the Master reported all well and tendered a clean " Declaration of Health " to the Customs Boarding Officer. The vessel was visited the following day in the usual manner when the Master reported the Donkeyman to be suffering from stomach trouble. Medical assistance was advised and procured, the case being diagnosed as pulmonary tuberculosis, which was later confirmed by bacteriological examination of the patient's sputum. The patient was removed to the Municipal Hospital for treatment and the necessary disinfection of quarters and bedding carried out.

## CHICKENPOX.

" CURONIA " S.S., from Hakipudas.

Arrived 22nd August and was visited by the Medical Officer of Health who examined a seaman, aged 24 years, and found him to be suffering from Chickenpox. The patient was removed to the Borough Infectious Diseases Hospital for treatment, and the necessary disinfection of quarters, bedding and clothing carried out.

## TYPHOID.

" BRINKBURN " S.S., from Oporto via Kirkaldy.

Arrived a.m. tide, 24th August. In response to a telephone message from H.M. Customs, the Medical Officer of Health visited the vessel and examined the Messroom Steward, aged

23 years, and found him to be suffering from a temperature and sore throat but no rash. Upon giving his name and address he was allowed to proceed home to Blyth. The Medical Officer of Health at Blyth was notified and a reply was received on the 6th September to the effect that the man had developed definite symptoms of typhoid. As the vessel had sailed for a foreign port in the meantime no further action was taken.

## TABLE D.

### Cases of Infectious Sickness occurring on Vessels during the Voyage but disposed of prior to arrival.

| DISEASE. | No. of Cases during 1933. | | No. of Vessels concerned. | Average for past 5 years. |
|---|---|---|---|---|
| | Passengers | Crew. | | |
| Chicken Pox....... | ... | ... | ... | ·2 |
| Continued Fever.. | ... | ... | ... | ... |
| Diphtheria.......... | ... | ... | ... | ·2 |
| Dysentery............ | ... | ... | ... | 2·8 |
| Erysipelas........... | ... | ... | ... | ... |
| Malaria............... | ... | 4 | 1 | 8·0 |
| Measles.............. | ... | 1 | 1 | ·2 |
| Pneumonia.......... | ... | ... | ... | 2·0 |
| Relapsing Fever... | ... | ... | ... | ... |
| Scarlet Fever...... | ... | ... | ... | ... |
| Smallpox............ | ... | 2 | 1 | ·8 |
| Tuberculosis........ | ... | 1 | 1 | ·6 |
| Typhoid Fever..... | ... | ... | ... | ·2 |
| Typhus Fever...... | ... | ... | ... | ... |
| TOTAL...... | ... | 8 | 4 | 15·0 |

## MALARIA.

"STORNEST" S.S., from West African ports via London and Hamburg.

Arrived 23rd January, when the Master reported that the 2nd Officer, Steward, Carpenter and a Fireman had suffered from Malaria whilst trading on the West African Coast, they were treated on board and had completely recovered before the vessel's arrival at a British port.

## TUBERCULOSIS.

"THISTLEGLEN" S.S., from Indian ports, Marseilles and Rotterdam.

Arrived 31st January, when the Master reported leaving the Cook in hospital at Vizagapatam.

## SMALLPOX.

"BRITISH DUCHESS" S.S., from Abadan, Colombo, Australian ports, Abadan and Hull.

Arrived 11th March, when the Master reported that the Steward and Cabin Boy developed Smallpox after leaving Abadan for Australian ports, both patients were removed to hospital at Colombo on the 27th November, 1933. The whole of the crew were re-vaccinated at Colombo and the necessary cleansing and disinfection carried out at that port, no further cases occurring.

## MEASLES.

"PLATO" S.S., from Raumo and Poole.

Arrived 17th July, when the Master reported a Seaman, aged 28 years, had been removed to hospital at Poole on the 15th July, suffering from Measles. The necessary disinfection of quarters and bedding was carried out by the Sanitary Authority at Poole.

No case of Plague, Cholera, Yellow Fever, Smallpox or Typhus occurred, neither was there any severe outbreak of Malaria of Plague-infected rats discovered on an arriving ship during the past year.

## OTHER CASES OF SICKNESS, ETC., INVESTIGATED.

In addition to the cases of infectious diseases tabulated, 90 cases of non-infectious sickness, etc., occurring during the voyage, or on arrival and during stay in port, were investigated by the Sanitary Inspectors. These included 40 cases of non-infectious sickness, 22 cases of injuries, 21 cases of venereal disease and 4 deaths.

Of the deaths reported 1 was due to heart failure and 3to accidental drowning.

## VENEREAL DISEASES.

**Number of Seamen treated at the V.D. Clinic during 1933:—**

| British | Total | Foreign | Total |
|---|---|---|---|
| Syphilis ......... | 15 | Syphilis ......... | 10 |
| Soft Chancre... | ... | Soft Chancre... | 2 |
| Syph. & Gono. | 3 | Syph. & Gono. | ... |
| Gonorrhœa...... | 27 | Gonorrhœa...... | 17 |
| Not Venereal Disease ... | 10 | Not Venereal Disease ... | 1 |
| | 55 | | 30 |

## PARROTS (PROHIBITION OF IMPORT) REGULATIONS, 1930.

14 parrots came under observation during the past year, in each case a written undertaking that the birds would not be landed was received from the owner.

## DESTRUCTION OF LARGE NUMBERS OF BEETLES.

The s.s. "Ledbury" arrived at Sunderland on Friday, the 5th May, from River Plate ports via London, at which latter port she discharged a general cargo consisting of grain, flour, tinned meats, wool, hides, dried blood and hooves. The vessel was boarded in the usual way and the Officer in charge of the ship reported that fumigation was to be carried out on the following day. An inspection was made for evidence of rat infestation, during which it was found that the cross-bunker 'tween-deck and No. 3 'tween-decks were infested with small dark coloured beetles about ¼-inch in length and small caterpillar-shaped insects about ½-inch in length.

The Master was questioned about these insects and reported that they originated in a consignment of 1,400 bags of hooves which were shipped at Buenos Aires and stowed in the cross-bunker 'tween-deck and No. 3 'tween-deck. The hooves were packed in new clean bags, and when shipped appeared to be in good condition and it was not until the following day that the insects were noticed on the hatch covers. Further investigation revealed that they originated in the bags of hooves. Very few maggots were seen but the hooves and 'tween-decks including the hatches were literally infested by the small hairy, caterpillar-like insects, which, according to the ship's officers, developed into the small beetle. The ship's officers reported that no portion of the ship's cargo apart from the hooves had been attacked, but that the beetles had bored their way into and through the soft wood hatches, which were 2½ inches thick, also the wooden 'tween-deck bulkheads. No information could be obtained from the officers on board as to what type of beetle it was, but the Master reported that the Company's Marine Superintendent at London had taken samples for examination purposes. The latter had informed the Master that considerable claims had been made against Shipping Companies by Importers of tinned meats on account of the beetles having bored their way through the wood cases containing the tins, the dealers having refused to accept delivery on finding beetles in the cases.

The Master also reported that during the passage from the River Plate to London he had twice carried out S.O.2 fumigation of the compartments affected and had daily sprayed the ventilator and hatch covers, besides covering the hatches with creosote, which had been successful in keeping the insects out of the living quarters, although a few beetles had worked their way into his lavatory accommodation through the ventilator and angle-iron joints of the saloon bulkhead.

The whole of the vessel was fumigated at the port with S.O.2 on Saturday, the 6th May, with satisfactory results as regards the insects infection. This was subsequently followed by two liberal coats of creosote in the compartments affected.

One of the beetles was submitted to a Pathologist at Sunderland, who reported that it was called the Dermestes vulpinus, a special allied to the "Bacon Beetle," but much more widely distributed by commerce. The larva feeds on skins or bones, and whey fully grown would wander away seeking a suitable locality for pupation. For that purpose it frequently bored into wood, but the holes were of a superficial nature and did not go deeply into the timber. In the present case they must undoubtedly have come from the cargo of the nature suggested, and merely burrowed into the woodwork for pupation.

## V. MEASURES AGAINST RODENTS.

804 vessels have been searched for rats and their Deratisation Certificates examined during the past year, compared with 880 for the corresponding period of 1932. Rat destruction was carried out on board of 56 vessels as against 67 vessels in 1932, resulting in the destruction of 929 rats compared with 1,540 for the preceding year, 771 rats were destroyed, principally by trapping, at warehouses and wharves on the river and docks, compared with 201 for 1932, making a total of 1,600 for 1933, as compared with 1,741 for the previous year.

In addition, 5,810 poison baits, compared with 5,480 for the preceding year, were laid at various points where trapping was considered futile, the result of which cannot be properly estimated. 15 rats have been submitted for bacteriological examination during the past year none of which gave any evidence of B. Pestis.

The total number of visits paid to vessels and premises during 1933 for the purpose of rat destruction was 4,149, as compared with 3,716 for 1932.

### 1. Steps taken for the detection of Rodent Plague.

(a) In ships in Port:—On all vessels, whether in possession of a valid certificate or not, enquiries are made as to the prevalence and mortality of rats on board, and systematic inspection is carried out by the Authority's Rat Catcher on all vessels arriving directly or otherwise from infected ports, also on vessels engaged in carrying grain and general cargoes. If there is the slightest evidence of rats on board, traps are set or poison baits laid. Specimen rats recovered from these vessels are submitted for bacteriological examination. In addition there is an understanding with the stevedores to report any dead rats during discharge of cargo.

(b) Similar measures are adopted when dealing with quays, wharves, warehouses, etc., in the port area.

### 2. Measures taken to prevent the passage of rats between ships and the shore.

All vessels from infected or suspected ports and all vessels carrying grain cargoes are required to place efficient rat guards on all mooring ropes. Where the supply of rat guards is insufficient the mooring ropes are to be covered daily with fresh tar for a distance of three feet from the edge of the quay outwards. Gangways used for the purpose of discharging cargo to be withdrawn when the vessel is not working.

### 3. Methods of Deratisation.

(A) SHIPS.

1. Fumigation by Sulphur Dioxide Gas which is generated by burning sulphur, 3 lbs. of sulphur to each 1,000 cubic feet of space, minimum time of exposure 8 hours.

2. Hydrogen Cyanide which is generated by the vaporisation of Liquid Hydrogen Cyanide:—2 ozs. per 1,000 cubic feet for cargo spaces and storerooms; 1 oz. per 1,000 cubic feet for living quarters and other places not used for stores or cargo. Minimum time of exposure 2 hours.

3. Trapping and laying of poison baits.

(B) PREMISES IN THE VICINITY OF DOCKS AND QUAYS.

Trapping and the laying of poison baits are the only methods used.

### 4. Measures taken for the detection of rat prevalence in ships and on shore.

Enquiries are made on all vessels from members of the crew, stevedores and workmen, and where necessary a systematic search for excreta, nests, gnawings, runs or damage to cargo or stores is made by the Authority's Rat Catcher under the supervision of an Inspector. Vessels discharging cargoes are visited daily for the purpose of ascertaining whether there are any dead rats or if it is necessary to set traps. All premises in the Port area are frequently and systematically searched for evidence of rat infestation by the Authority's Rat Catcher and where rat infestation exists trapping and poisoning is carried out. Large areas on the Docks are used for the storing of pit props and timber; these are inspected daily for rat prevalence and, when necessary, poison baits are laid.

### 5. Ratproofing.

(A) TO WHAT EXTENT ARE DOCKS, WHARVES, &C., RATPROOF?

The rat proofing of docks and wharves still presents a difficult problem, the old wooden wharves and quays still offer considerable harbourage to rats. Attention has been paid to the stacks of timber and pit-props, which offer considerable rat harbourages, and importers have been asked to raise the bases of the stacks but this has only been done in a few instances when the stacks are being sorted and there is plenty of ground space available, which does not often occur.

(B) ACTION TAKEN TO EXTEND RATPROOFING.

1. In ships:—When vessels are examined for the purpose of issuing Deratisation and Deratisation Exemption Certificates any harbourages, runs, gnawings, defective bulkheads giving access to stores, etc., are brought to the notice of the master or owner and practical suggestions made for remedying same.

2. On shore:—A good look-out is kept on all wharves and warehouses for defects and accumulations likely to cause harbourage for rats and when found the matter is taken up with the owner or tenant and instructions given to remedy the defects and remove accumulations.

One of the warehouses at the South Docks, used principally for the transit and storage of foodstuffs, was found to be in a bad state of repair and infested with rats. The owners were instructed to carry out certain measures of rat-proofing which are being completed.

## RATS DESTROYED DURING 1933.

### TABLE E.

### (1) On Vessels.

| Number of Rats. | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total in Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Black ........................ | 3 | 48 | 21 | 144 | 295 | 64 | 43 | 49 | 100 | 144 | 2 | 50 | 863 |
| *Brown ........................ | ... | ... | ... | ... | ... | 42 | 7 | ... | ... | 17 | ... | ... | 66 |
| Species Not Recorded ...... | ... | ... | ... | ... | .. | ... | ... | ... | ... | ... | ... | ... | ... |
| Examined ..................... | ... | 3 | 1 | 2 | 2 | 2 | ... | 1 | 4 | .. | ... | ... | 15 |
| Infected with Plague ....... | ... | ... | .. | ... | ... | ... | ... | ... | ... | ... | ... | ... | Nil. |

*including 54 Mice.

### TABLE F.

### (2) In Docks, Quays, Wharves and Warehouses.

| Number of Rats | Jan. | Feb. | Mar. | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec | Total in Year. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Black ........................ | ... | ... | ... | 3 | 34 | 18 | 2 | ... | ... | ... | 1 | ... | 58 |
| Brown ........................ | 6 | 27 | 50 | 81 | 27 | 42 | 96 | 19 | 60 | 60 | 107 | 38 | 613 |
| Species Not Recorded ..... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | Nil. |
| Examined ..................... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | Nil. |
| Infected with Plague...... | ... | .. | ... | .. | ... | ... | ... | ... | ... | ... | ... | ... | Nil. |

## TABLE G.

Measures of Rat Destruction on Plague "infected" or "suspected" Vessels or Vessels from Plague infected ports arriving in the Port during the year.

| Total Number of such Vessels Arriving. | Number of such Vessels Fumigated by S.O$_2$. | Number of Rats Killed. | Number of of such Vessels Fumigated by H.C.N. | Number of Rats Killed. | Number of such Vessels on which Trapping, Poisoning, etc., were Employed. | Number of Rats Killed. | Number of such Vessels on which measures of Rat destruction were not carried out |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| *108 | 15 | 332 | 6 | 41 | 41 | 64 | 79 |

* Including Vessels known to have called at Infected Ports during the Voyage.

## TABLE H.*

### Deratisation Certificates and Deratisation Exemption Certificates issued during the year.

| Net Tonnage. | No. of Ships. | No. of Deratisation Certificates Issued. | | | | | No. of Deratisation Exemption Certificates Issued. | Total Certificates Issued. |
|---|---|---|---|---|---|---|---|---|
| | | After Fumigation with | | | After Trapping, Poisoning, Etc. | TOTAL. | | |
| | | H.C.N. | Sulphur. | H.C.N. & Sulphur. | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Ships up to 300 Tons.............. | 9 | Nil. | Nil. | Nil. | Nil. | Nil. | 9 | 9 |
| ,, from 301 Tons to 1,000 Tons | 39 | ... | ... | ... | ... | ... | 39 | 39 |
| ,, ,, 1,001 ,, 3,000 ,, | 68 | 5 | 20 | ... | ... | 25 | 43 | 68 |
| ,, ,, 3,001 ,, 10,000 ,, | 25 | 2 | 11 | ... | ... | 13 | 12 | 25 |
| ,, over 10,000 Tons ............ | ... | ... | ... | ... | ... | ... | ... | .. |
| TOTALS ..................... | 141 | 7 | 31 | Nil. | Nil. | 38 | 103 | 141 |

*Applicable only to those ports approved by The Ministry of Health for the issue of Deratisation Certificates and Deratisation Exemption Certificates in accordance with the provisions of Article 28 of the International Sanitary Convention, 1926. (Form Port II).

## VI. HYGIENE OF CREWS' SPACES.

### TABLE J.

### Classification of Nuisances.

| Nationality of Vessel | Number inspected during 1932 | Defects of Original Construction | Structural defects through wear and tear | Dirt, Vermin and other conditions prejudicial to health |
|---|---|---|---|---|
| British... ... | 1709 | ... | 217 | 168 |
| Other Nations | 465 | 1 | 8 | 35 |

The above table is a classification of the nuisances and defects found to exist on board the 2,174 vessels inspected during the past year. Of this number 119 or 5·5% were found to have one or more nuisances or sanitary defects, composed for the most part of dirty or verminous quarters, foul w.c's, bilges, peak and ballast tanks, defective port lights, defective stoves and fittings, leaky decks, defective w.c's, doors, etc. With the exception of 3 vessels which left the Port before the necessary work was completed, all the nuisances and defects were remedied, suggestive that the work is carried out with a minimum of friction. On the 2,174 vessels inspected there were 36,415 men living, being an average of 16·7 men per vessel.

## SANITARY ACCOMMODATION AT THE PORT.

The sanitary accommodation at the river berths is sufficient. There is still a lack of sufficient sanitary accommodation along the East side of Hudson Dock and East, South and West sides of Hendon Dock. Although the private yards have adequate accommodation for their own staffs, this is not available for dock labourers, and as the docks themselves are surrounded by pit prop stacks, nuisances occur daily. There is an urgent need for additional accommodation.

# VII. FOOD INSPECTION.

## The Public Health (Imported Foods) Regulations, 1925.

## The Public Health (Imported Milk) Regulations, 1926, and

## The Public Health (Preservatives, &c., in Food) Regulations, 1927.

In accordance with the powers contained in these Regulations relating to the inspection of Foods arriving from foreign and home ports, the provisions have been carried out in so far as they concern the Public Health (Imported Food) Regulations, 1925. With regard to the Public Heath (Imported Milk) Regulations, 1926, and the Public Health (Preservatives, etc., in Food) Regulations, 1927, it has not been found necessary to take any action. Small quantities of "Fruit Pulp" and "Vegetables in Brine" are landed weekly and samples are regularly taken by the examining Officer of Customs in compliance with the above-named Regulations.

76 visits have been paid to wharves and warehouses on the River and at the Docks for the purpose of inspecting foodstuffs.

The following amount of foodstuffs has been condemned as unfit for human food, viz.:—6 bags of carrots. In addition 7 boxes of shelled walnuts were allowed to be re-exported at Agent's request.

It has not been found necessary to submit any samples of food to the Bacteriologist or Public Analyst for examination during the past year.

## SHELL FISH.

There are no shell fish beds or layings within the jurisdiction of the Port Sanitary Authority.

For of five locally-owned steam trawlers, occasionally supplemented by a small number of Scotch fishing vessels, made 558 landings of fish during 1933. These landings were of prime quality and found a ready sale. Small consignments of overland fish were brought to the market for sale on a commission basis. There were generally of good quality.

During the past year nuisances have occurred at the fish quay owing to the irregular and infrequent removals of fish offal during the summer months. The matter was taken up with the Contractors concerned, who promised a more regular and frequent service.